

99C-141

Proposal Title: Integrating Ecosystem Restoration Program Objectives with
Instream Gravel Mining
Applicant Name: Resource Design Technology, Inc.
Mailing Address: 302-A South Lexington Drive, Folsom, California 95630
Telephone: (916) 983-9193
Fax: (916) 983-9194
Email: resourcedesign@msn.com

Amount of funding requested: \$ 388,950 for 2 years

Indicate the Topic for which you are applying (check only one box).

- | | |
|---|---|
| <input type="checkbox"/> Fish Passage/Fish Screens | <input type="checkbox"/> Introduced Species |
| <input type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input checked="" type="checkbox"/> Local Watershed Stewardship | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

Does the proposal address a specified Focused Action? ☒ yes ☐ no

What county or counties is the project located in? Solano County, Tehama County,
Sacramento County, Shasta County, Yolo County

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|--|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: _____ |
| <input type="checkbox"/> Sacramento Trib: _____ | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: _____ |
| <input type="checkbox"/> San Joaquin Trib: _____ | <input type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input type="checkbox"/> Delta: _____ | <input checked="" type="checkbox"/> Other: <u>Zones 4, 5, 10</u> |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input checked="" type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input checked="" type="checkbox"/> Late-fall run chinook salmon | <input checked="" type="checkbox"/> Longfin smelt |
| <input checked="" type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input checked="" type="checkbox"/> Splittail | <input checked="" type="checkbox"/> Striped bass |
| <input checked="" type="checkbox"/> Green sturgeon | <input checked="" type="checkbox"/> All chinook species |
| <input checked="" type="checkbox"/> Migratory birds | <input checked="" type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Other: _____ | |

Specify the ERP strategic objective and target(s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:

Volume I: 30, 31, 35, and 40-46

Volume II: 182, 183, 184, 199, 200, 201, 202, 330, 331, and 332

Indicate the type of applicant (check only one box):

- | | |
|--|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input checked="" type="checkbox"/> Private party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

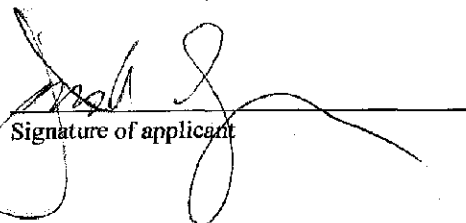
- | | |
|--|---|
| <input checked="" type="checkbox"/> Planning | <input type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- 1.) The truthfulness of all representations in their proposal;
- 2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- 3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

James A. Canger

Printed name of applicant


Signature of applicant

RESOURCE DESIGN
TECHNOLOGY, INC.
Land • Minerals • Environment

***CALFED Bay-Delta Program
Ecosystem Restoration Projects and Programs***

Title: Integrating Ecosystem Restoration Program Objectives with
Instream Gravel Mining

Topic Area: Local Watershed Stewardship and Environmental Education

Primary Contact: David E. Brown, Principal
Resource Design Technology, Inc.
302-A South Lexington Drive
Folsom, California 95630
Phone: (916) 983-9193 Fax: (916) 983-9194
E-mail: resourcedesign@msn.com

Ecological Zone Overlap: Sacramento County, Shasta County, Solano County, Tehama County, and
Yolo County

Participants and Collaborators: Potentially 35 Additional Counties: Alameda County, Alpine County, Amador
County, Butte County, Calaveras County, Colusa County, Contra Costa
County, El Dorado County, Fresno County, Glenn County, Kings County,
Lake County, Lassen County, Madera County, Marin County, Mariposa
County, Mendocino County, Merced County, Modoc County, Napa County,
Nevada County, Placer County, Plumas County, San Benito County, San
Joaquin County, San Mateo County, Santa Clara County, Santa Cruz County,
Sierra County, Siskiyou County, Sonoma County, Stanislaus County, Sutter
County, Trinity County, Tulare County, Tuolumne County, and Yuba County

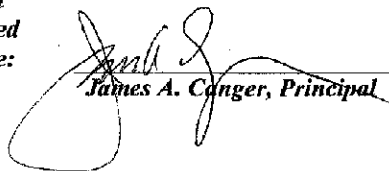
Federal Land Agencies: U.S.D.I. Bureau of Land Management and
U.S.D.A. Forest Service

Type of Organization: Private (for profit) individual entity

Tax Status: Exempt

Tax ID No.: 94-3291385

**Applicant
Authorized
Signature:**


James A. Canger, Principal

April 16, 1999
Date

Executive Summary

Project Title

Integrating Ecosystem Restoration Program Objectives with Instream Gravel Mining

Applicant

Resource Design Technology, Inc.

Objective and Project Description

Instream gravel mining is identified as a stressor in the ERP and as a cause of degradation of river ecosystem functions, processes and habitats. The ERP vision is "...relocating gravel mining operations to alluvial deposits outside active stream channels and riparian zones and introducing gravel in deficient areas in streams..." (ERP, Vol. I, page 290). California Department of Conservation records reveal there are 90 streambed or gravel bar skimming (instream) gravel operations located throughout the 14 ERP ecological zones, with reported surface disturbance of approximately 6,000 acres. The aggregate materials provided from these sites are necessary to the local economies, providing needed construction materials and employment. As a result of the quality of the resources, investment in operation, and other factors, it is likely that instream gravel mining will continue at existing sites. The difficulty of relocating and re-permitting at off-channel locations is likely to continue to discourage wide-scale relocation within any near-term time frames.

The goal of this program is to determine how the Ecosystem Restoration Program (ERP) vision can be implemented at continuing instream gravel operations and to develop a cooperative program with individual operators, and the mining industry, to adopt the ERP vision for stream channels. The primary questions being addressed through this project are (1) determining how much overlap exists between ERP objectives and other existing requirements, and (2) determining how those objectives can be accommodated into ongoing instream operations to assist in the overall ERP vision.

Because surface mine operators are required to perform reclamation under SMARA, the results of this program should be very successful at achieving ERP objectives, at little continuing cost to the ERP program. Surface mine reclamation will be self-sustaining as required by existing regulation. The results of this program in three ecological zones may have underspread adaptive management throughout other ecological zones.

Applicant Qualifications

Resource Design Technology, Inc. is a specialized planning and environmental management firm that has a primary interest in the responsible use of our natural resources.

Our staff has unique experience in regulation and environmental consequences of the mining industry, including instream gravel mining. Our office (under previous ownership) participated in the development of the Yolo County Cache Creek Management Plan and the Glenn County Aggregate Resource Management Plan. Our experience is therefore ideally suited to the proposed program to implement ERP objectives addressing instream mining.

Project Description

Proposed Scope of Work

The goal of this program is to determine how the Ecosystem Restoration Program (ERP) vision can be implemented at continuing instream gravel operations. Secondly, the goal of this program is to develop a cooperative program with individual operators, and the mining industry as a whole, to adopt the ERP vision for stream channels and voluntarily implement design criteria as part of their ongoing operations and reclamation plans, as applicable.

- *Phase I - Develop Integrated Criteria*

- **Criteria Implementing Scope:** ERP objectives to establish sufficient quantities of natural sediment supply, maintain, improve or restore stream channel meander and fluvial geomorphology characteristics, and restore riparian habitat, would be developed for the North Sacramento Valley, Cottonwood Creek, and Yolo Basin ecological zones. Criteria would incorporate engineering, geomorphological, biological and planning expertise. Criteria would be coordinated with the permit requirements of agencies, with land use authority (counties, cities, U.S.D.A. Forest Service, and U.S.D.I. Bureau of Land Management, as appropriate) and resource management agencies (DFG, COE, FWS and others).

- **Tasks: A. Develop ERP Implementation Criteria**

1. *Engineering/Gomorphology General Design Guidelines:* Stream channel design profiles, meander design, streambed spawning gravels, water detention/storage facilities.
2. *Revegetation Guidelines:* Riparian species desired, soil preparation, resoiling, seeding and planting, feeding and irrigation, weed control, timing/seasonality, monitoring and maintenance.
3. *Sedimentation Control Guidelines:* Detention/discharge facilities, erosion and sedimentation control.

- B. Coordinate ERP Criteria with Agency and Regulatory Requirements**

1. Surface Mining and Reclamation Act (SMARA)
2. Section 404 of Clean Water Act
3. Section 1603 of Fish and Game Code
4. U.S.D.I. Bureau of Land Management 3809 Regulations
5. U.S.D.A. Forest Service
6. County and City Requirements

- **Deliverables:** ERP Design Guidelines for Instream Mining, Integrated Regulatory Overlap Matrix.

- Schedule: Phase I is estimated to require approximately four to six (4-6) months to develop ERP implementation criteria (Task A), and two to three (2-3) months to coordinate regulatory requirements (Task B).
- *Phase II - Develop Cooperative Program*
 - Scope: Determine how criteria could best be applied by instream mining projects through adjustments in operation and/or reclamation activities. Cooperation of the mining industry would be sought through industry organization, and cooperation of individual operators through volunteer application of criteria meeting or exceeding permit requirements. This program will therefore involve an education element for industry, operators, local agencies with land use authority, and possibly field personnel of resource agencies monitoring permit compliance.
 - Tasks:
 - A. Evaluate Implementation Methods
 1. Determine Operational Opportunities Using Implementation Criteria
 2. Determine Reclamation Opportunities Using Implementation Criteria
 3. Prepare Implementation Recommendations
 - B. Education Program
 1. Industry Workshops
 2. Agency Workshops
 3. Operator Meetings
 - C. Monitoring to Verify Implementation Success
 1. Conduct Six to Nine (6-9) Month Follow-Up at Instream Sites
 2. Prepare Monitoring Report
 - Deliverables: Implementation Recommendations Report, Education Program Materials and Workshop Results, Implementation Monitoring Report.
 - Schedule: Phase II is estimated to require approximately two (2) months for Task A and two (2) months for Task B. Task C would be delayed six to nine (6-9) months to provide time for implementation, after which there would be an evaluation and monitoring report, requiring approximately two (2) months.

The program through Phase II, Task B is expected to be completed in approximately 12 months, with Phase II, Task C monitoring report completed approximately 20 to 24 months after initiation.

Future phases of this program (not requested for funding at this time) may include: Phase III - Improving Site Restoration by Operators Through CALFED Funding, and Phase IV - Expanding Integration Throughout Other Ecological Zones and/or Other Land Uses Important to Local Watershed Stewardship Objectives. Phases I and II are considered inseparable; Phases III and

IV are considered independent (following Phases I and II) and are deferred to a future proposal based on the successes of Phases I and II.

Location of the Project

This program addresses instream locations throughout Zone 4 (North Sacramento Valley), Zone 5 (Cottonwood Creek), and Zone 10 (Yolo Basin). This programmatic approach is therefore initially independent of specific sites; as such no site map is currently applicable.

Ecological/Biological Benefits

Ecological/Biological Objectives

Instream gravel mining is identified as a stressor in the ERP and as a cause of degradation of river ecosystem functions, processes and habitats, due to impacts including: homogenization of the river channel and floodplain geomorphology, removal of gravel triggering channel adjustments, removal of riparian vegetation, instream woody debris, and spawning reeds, potential "pit capture", and surface disturbance leading to invasion of undesirable non-native plants. The ERP vision is "...relocating gravel mining operations to alluvial deposits outside active stream channels and riparian zones and introducing gravel in deficient areas in streams..." (ERP, Vol. I, page 290). The ERP alternatively recognizes that "...if alternate sources of aggregate are not viable short-term solution, permits should require an undisturbed corridor of riparian vegetation and natural bar deposits adjacent to existing mines. In addition extraction rates should be limited to the estimated yield from upstream each year." (ERP, Vol. I, page 291.) The ERP identifies instream gravel mining as a stressor in the following ecological zones: Zone 4 (North Sacramento Valley), Zone 5 (Cottonwood Creek) and Zone 10 (Yolo Basin).

California Department of Conservation records reveal there are 90 streambed or gravel bar skimming (instream) gravel operations located throughout the 14 ERP ecological zones, with reported surface disturbance of approximately 6,000 acres. The aggregate materials provided from these sites are necessary to the local economies, providing needed construction materials and employment. Many sites have vested rights to continue operations, others operate in compliance with use permits granted for extended periods of time. As a result of the quality of the resources, investment in operation, and other factors, it is likely that instream gravel mining will continue at existing sites. The difficulty of relocating and re-permitting at off-channel locations is likely to continue to discourage wide-scale relocation within any near-term time frames.

The mining industry is highly regulated. Instream operations are subject to an array of permits by responsible agencies, including the Department of Fish and Game (DFG), U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service (FWS), and others. This project is a programmatic approach to addressing CALFED's goals and visions for reducing or eliminating stress of instream gravel mining by developing criteria to meet ERP objectives, targets and actions, and integrating these criteria with requirements of SMARA and the requirements of permitting agencies as implemented by the operators.

The primary questions being addressed through this project are (1) determining how much overlap exists between ERP objectives and other existing requirements, and (2) determining how those objectives can be accommodated into ongoing instream operations to assist in the overall ERP vision. This program is consistent with ERP strategic objectives (see table 3).

Because surface mine operators are required to perform reclamation under SMARA, the results of this program should be very successful at achieving ERP objectives, at little continuing cost to the ERP program. Surface mine reclamation will be self-sustaining as required by existing regulation. The results of this program in ecological zones 4, 5 and 10 may have underspread adaptive management throughout other ecological zones.

Linkages

This programmatic approach appears somewhat unique among past funded projects; no direct linkages exist. The accomplishments in Phases I and II will be independently successful, but, if continued and linked to Phases III and IV, additional system-wide benefits may occur.

Each of the 14 previously funded Watershed Programs listed below were contacted (see "Watershed Programs Contacted" below) and reviewed for linkage. Most demonstrate similarities and are interested in this project's approach to watershed mining sites. Although some tasks could overlap, most at present do not and are local in focus, disconnected and consequently different than our existing agencies and regulation programmatic and larger geographical scope approach.

Additionally, we contacted the responsible representatives at each lead agency (counties, selected cities and federal land agencies) to determine their interest in working as a project team member in the collection of data concerning local land use planning and permitting objectives at the mining sites. (See "Local Involvement", page 7). Many have responded (about 30%) to favorably join the team although most, at the time of proposal preparation, were reviewing our invitation to join our team with their local approval processes (Boards of Supervisors, managers, etc.).

Additional linkages are believed to be available with previously funded projects presently managed by water districts, irrigation districts, etc. However, they number too many to consider at this time due to our potential geographic scope (all ecological zones which total more than 90 instream mining sites). A determination of the linkage to these sites would also be included if this project is funded.

Watershed Programs Contacted

- Alhambra Creek Watershed CRMP Program (98-G1053)
- American River (North and Middle Forks) Integrated Watershed Stewardship Strategy (98-G1047)
- Battle Creek Watershed Stewardship (98-G1018)
- Cold Water Fisheries and Water Quality Element (98-G1023)
- Corte Madera - Local Watershed Stewardship Steelhead Trout Plan (98-G1022)

Cottonwood Creek Watershed Group (98-G1015)
Lower Mokelumne River Watershed Stewardship Program (98-G1038)
Lower Putah Creek Watershed Stewardship Program (98-G1052)
Merced River Corridor Restoration Plan (98-G1026)
Petaluma River Watershed Restoration Program (98-G1014)
South Yuba River Coordinated Watershed Management Plan (98-G1029)
Sulphur Creek Coordinated Resource Management Planning Group Proposal (98-G1049)
Union School Slough Watershed Improvement Program (98-G1040)
Yolo Bypass Watershed Restoration Strategy (98-G1033)

Counties Contacted (SMARA Managers and Boards of Supervisors)

Approximately 40 counties located within the geographical scope of the ERP

Federal Lead Agencies Contacted

U.S.D.I. Bureau of Land Management
U.S.D.A. Forest Service

System-Wide Ecosystem Benefits

Success in improving and increasing stream habitat in zones 4, 5 and 10 would have system-wide benefits by potentially increasing fish populations and controlling undesired downstream sedimentation. Habitat enhancement, stream meander, and water storage would also positively affect flood control.

Benefits to third parties would include site land owners and downstream landowners affected by channel degradation.

Technical Feasibility and Timing

As addressed above, other alternatives evaluated consisted of the ERP desire to remove instream operations to off-channel sites; this solution is not considered feasible in the near-term. This program therefore targets incorporation of ERP objectives at surface mining operations at the earliest feasible time.

This program works within the parameters of existing environmental compliance already completed for instream mining operations; no CEQA, NEPA documentation or other permits would therefore be required. This is considered a significant benefit, as costs and uncertainties of additional permitting are avoided.

Monitoring and Data Collection Methodology

Site monitoring would be conducted to determine the degree of success in operators accommodating ERP implementation criteria. Monitoring will, at a minimum, be designed to confirm:

- The effectiveness of Implementation Criteria Design
- The degree to which operators voluntarily incorporate the criteria
- The degree to which land use and responsible agencies accept the ERP criteria
- Operational and reclamation opportunities and constraints
- The effectiveness of the education program

Monitoring Parameters and Data Collection Approach

Monitoring will occur for each active instream gravel mining operation voluntarily participating in the program. The monitoring program will result in a statistical evaluation of the success of ERP Implementation Criteria and frequency of use by operators, logged by interview and site review.

Data will be assembled into questionnaires and task implementation checklists, collected by project staff involved in the development of the implementation criteria and cooperative program with the mining industry.

Data Evaluation Approach

Data collected will be organized by each ERP objective and implementation criterion to display the degree of success achieved at instream mining operations. Participant and collaborator local and federal agencies, and the industry, will be supplied with the results as a peer review of the program's success.

Local Involvement

The counties listed below were contacted by phone and a discussion of our proposal occurred that included an invitation to join our project team. Additionally, a letter describing the project's approach and their interest to participate was sent to each. An example of the letter is included as Attachment 6.

Individuals responsible for SMARA at over 40 local lead agencies have been informed of this proposed program. A list of those individuals is included with Attachment 6.

Additionally, for each county listed above, a letter was sent to the Board of Supervisors notifying them of the potential that a granted project may be conducted in their jurisdictional areas. An example of the letter is included as Attachment 7.

Both mining industry associations (alphabetically, California Mining Association and Construction Materials Association of California) were assessed of this project's focus to coordinate their involvement in the future. The Executive Director of each association has demonstrated their participation would also strengthen the support of this project's focus.

Applicant Qualifications

Resource Design Technology, Inc. is a specialized planning and environmental management firm that has a primary interest in the responsible use of our natural resources. Our mission is to provide agencies and industry engaged in resource development, land use management and conservation with strategically planned and implemented programs.

Our staff has unique experience in regulation and environmental consequences of the mining industry, including instream gravel mining. Our office (under previous ownership) participated in the development of the Yolo County Cache Creek Management Plan, receiving the largest contract award of the consultant team and preparing three of the Environmental Impact Reports for that program. We also completed the Glenn County Aggregate Resource Management Plan, one of the few such plans to be completed statewide. Our experience is therefore ideally suited to the proposed program to implement ERP objectives addressing instream mining. Project organization and responsibility, and collaborating participants are shown in Figure 1.

The project manager for this effort will be David Brown. Mr. Brown has an MS in Geography, is an experienced project manager who has prepared planning and environmental documentation for over 15 years. His broad-based academic background contributes to his in-depth understanding of environmental issues, while his history of work on complex and controversial land development projects provides a unique level of experience. He has prepared mine and reclamation plans, and permitting and environmental documentation on mining projects throughout the State, from the largest gold mines to uncommon industrial minerals, to aggregates. He is currently responsible for managing programs to assist four agencies with over 60 gravel and other mines in compliance with the California Surface Mining and Reclamation Act, as well as authoring and managing Environmental Impact Reports and permit compliance activities at mining sites throughout California.

Additionally, Resource Design Technology, Inc.'s contracts have included providing direct SMARA support services to County and City Lead Agencies performing annual mine inspections and financial assurance estimates (bonding amounts for reclamation). We are and have been very active members of the Construction Materials Association of California (all Chapters) and the California Mining Association, and regularly cite industry, agency and associations as references to our mining expertise and project experience.

Table 3
Primary Applicable ERP Strategic Objectives and Targets

Ecosystem Elements	Page Reference (Vol. I)	Ecological Zone	Strategic Objective	Page Reference (Vol. II)	Target	Page Reference (Vol. II)
Ecological Process Visions						
Natural Sediment Supply	Pages 30-31	Zone 4: North Sacramento Valley	Establish sufficient quantities of natural sediment supply to reactivate stream channel meander.	Zone 4: page 182	N/A	N/A
		Zone 5: Cottonwood Creek		Zone 5: page 199	Action 1A: Cooperate with the aggregate industry to relocate existing operations.	Zone 5: page 200
		Zone 10: Yolo Basin		Zone 10: page 330	Target 1: Maintain stream meanders; Actions 1A and 1B: Supplement gravel recruitment.	Zone 10: page 330
Stream Meander	Page 35	Zone 4: North Sacramento Valley	Maintain, improve or restore stream channel meander.	Zone 4: page 182	Target 1: Preserve or restore channel meander; create a more defined clear creek channel.	Zone 4: page 183
		Zone 5: Cottonwood Creek		Zone 5: page 201	Target 1: Preserve or restore channel meander in Cottonwood Creek; Action 1B: Develop a cooperative program to mechanically create a more defined stream channel.	Zone 5: page 201

Table 3
Primary Applicable ERP Strategic Objectives and Targets

Ecosystem Elements	Page Reference (Vol. I)	Ecological Zone	Strategic Objective	Page Reference (Vol. II)	Target	Page Reference (Vol. II)
Ecological Process Visions (continued)						
Natural Floodplains and Flood Processes	Pages 40-46	Zone 4: North Sacramento Valley	Modify channel ... configurations to improve floodplain function	Zone 4: page 182	Targets 1 and 2: Increase and maintain clear creek floodplain in conjunction with stream meander	Zone 4: page 183
		Zone 5: Cottonwood Creek		Zone 5: page 201	N/A	N/A
		Zone 10: Yolo Basin	Preserve and enhance fluvial geomorphology characteristics	Zone 10: page 331	Target 1: More closely emulate natural stream channel configuration; Action 1a: Evaluate feasibility of modifying cross-sections; Target 4: Establish floodwater retention by developing other channel water storage facilities.	Zone 10: page 331
Habitat Visions						
Riparian and Riverine Aquatic Habitats	Page 108	Zone 4: North Sacramento Valley	Restore riparian scrub woodland and forest habitat.	Zone 4: page 184	Target 1; Action 1A: Develop a cooperative program to establish riparian habitat through voluntary cooperation.	Zone 4: page 184
		Zone 5: Cottonwood Creek		Zone 5: page 202	Action 1A: Cooperatively negotiate agreements to maintain and resolve riparian communities.	Zone 5: page 202
		Zone 10: Yolo Basin		Zone 10: page 332	Target 1: Restore riparian vegetation along Cache Creek. Action 1A: Develop a cooperative program to restore riparian vegetation.	Zone 10: page 332

Table 4
Sample Quarterly Budget

Task		Quarterly Budget Oct-Dec 99	Quarterly Budget Jan-Mar 00	Quarterly Budget Apr-Jun 00	Quarterly Budget Jul-Sep 00	Quarterly Budget Oct-Dec 00	Total Budget
<i>Phase I - Develop Integrated Criteria</i>							
Project Management		37,100	23,900	15,000	5,250	20,000	101,250
Task A: Develop ERP Implementation Criteria							
Task 1	Engineering/Geomorphology	6,850	27,400				34,250
Task 2	Revegetation	14,120	21,180				35,300
Task 3	Sedimentation	11,600	17,400				29,000
Task B: Coordinate Criteria							
Task 1	SMARA	6,000	6,000				12,000
Task 2	Section 404	6,000	6,000				12,000
Task 3	Section 1603	6,000	6,000				12,000
Task 4	BLM 3809	6,000	6,000				12,000
Task 5	USFS	6,000	6,000				12,000
Task 6	County and City	15,000	10,000				25,000
Subtotal Phase I		109,670	124,880	15,000	5,250	20,000	274,800
<i>Phase II - Developing Cooperative Program</i>							
Task A: Evaluate Implementation Methods							
Task 1	Operational Opportunities			3,575	10,725		14,300
Task 2	Reclamation Opportunities			3,575	10,725		14,300
Task 3	Preparation			5,300	15,900		21,200

Table 4
Sample Quarterly Budget

Task B: Education									
Task 1	Industry				2,900	4,000			6,900
Task 2	Agency				2,900	4,000			6,900
Task 3	Operator				16,350	10,000			26,350
Task C: Monitoring to Verify									
Task 1	Follow-Up							20,450	20,450
Task 2	Report							4,000	4,000
Subtotal Phase II					34,600	55,100		24,450	114,150
TOTAL					109,670	124,880	49,600	60,350	388,950

Scope of Work - Budget

Topic	Section Description	Direct Labor Hours	Direct Salary and Benefits (\$)	Service Contracts ⁽¹⁾ (\$)	Material and Acquisition Costs (\$)	Miscellaneous and Other Direct Costs ⁽²⁾ (\$)	Overhead and Indirect Costs (\$)	Other ⁽³⁾ (\$)	Total Costs (\$)
Sections									
<i>Phase I - Develop Integrated Criteria</i>									
Project Management		480	60,000		1,250	8,750	36,000		106,000
<i>Task A - Develop ERP Implementation Criteria</i>									
Task 1	Engineering/Geomorphology	240	18,000		10,250		6,000		34,250
Task 2	Revegetation	240	28,800		3,500		3,000		35,300
Task 3	Sedimentation	240	18,000		5,000		6,000		29,000
<i>Task B - Coordinate Criteria</i>									
Task 1	SMARA	160	12,000						12,000
Task 2	Section 404	160	12,000						12,000
Task 3	Section 1603	160	12,000						12,000
Task 4	BLM 3809	160	12,000						12,000
Task 5	USFS	160	12,000						12,000
Task 6	County and City	200	15,000						15,000
<i>Subtotal Phase I</i>		2,200	199,800		20,000	8,750	51,000		279,550
<i>Phase II - Developing Cooperative Program</i>									
<i>Task A - Evaluate Implementation Methods</i>									
Task 1	Operational Opportunities	160	12,800			1,500			14,300
Task 2	Reclamation Opportunities	160	12,800			1,500			14,300
Task 3	Preparation	240	19,200			2,000			21,200
<i>Task B - Education</i>									
Task 1	Industry	80	6,400			500			6,900
Task 2	Agency	80	6,400			250			6,650
Task 3	Operator	320	25,600			750			26,350

Scope of Work - Budget

Task C: Monitoring to Year 2									
Task 1	Follow-Up	240			500	750		19,200	20,450
Task 2	Report	80						4,000	4,000
<i>Subtotal Phase II</i>		1,360	83,200		500	7,250		18,450	114,150
TOTAL		3,560	283,000		20,500	16,000	51,000	18,450	388,950

Blank: None or Not Applicable

(1) Contracted hours with local land use agencies

(2) Travel and Per Diem

(3) Task Costs projected for two years at 80 hours/year

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I-018342

Resource Design Technology, Inc.

Collaborators

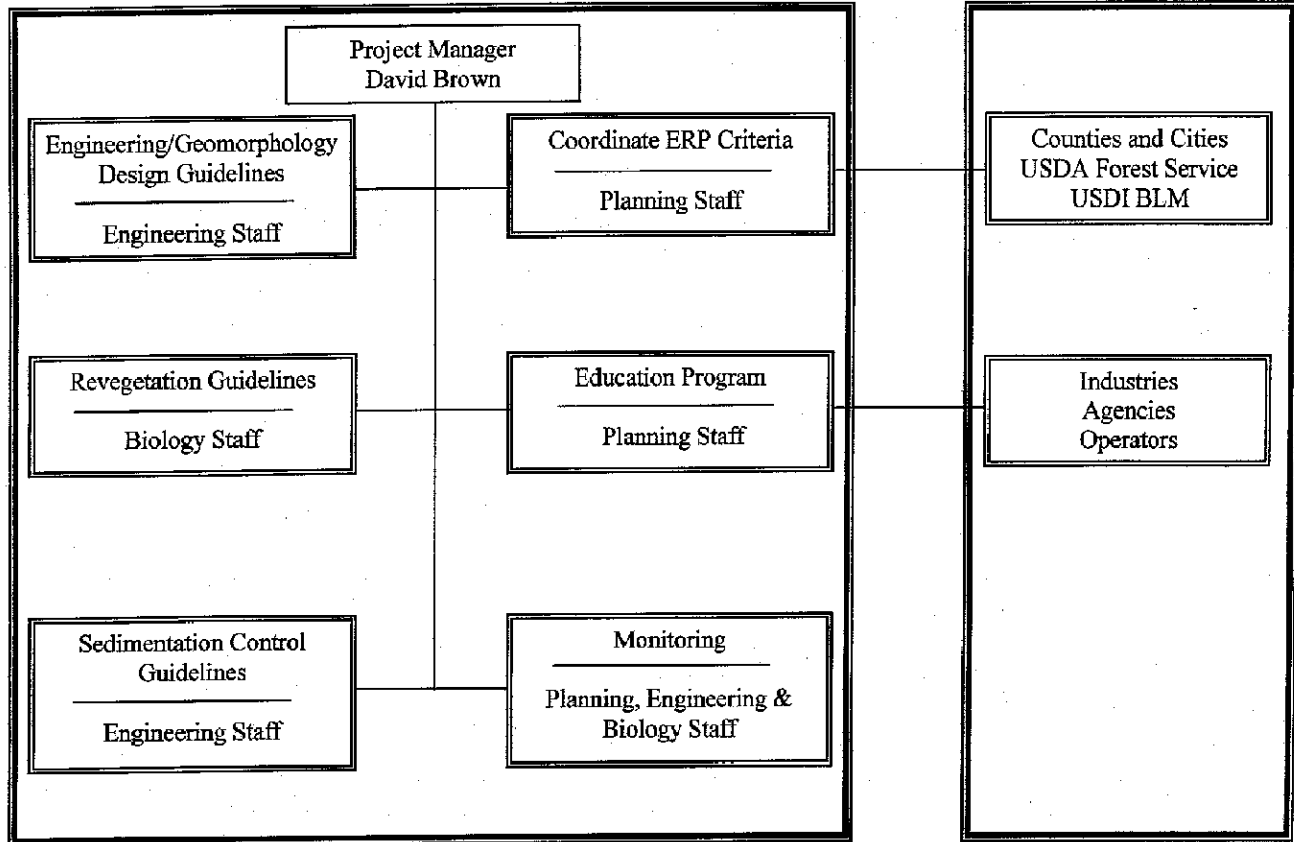


Figure 1
Project Team Organization
And Responsibilities

RESOURCE DESIGN
TECHNOLOGY, INC.

List of Attachments

- Attachment 1: DWR 4100 (Rev. 9/95) - Standard Clauses - Contracts with Public Entities
DWR 4099 (Rev. 9/95) - Standard Clauses - Service & Consultant Service
Contracts for \$5,000 & Over with Nonpublic Entities
DWR 4099A (Rev. 1/99) - Additional Standard Clauses
- Attachment 2: DI-2018 - Certifications Regarding Debarment, Suspension and Other
Responsibility Matters, Drug-Free Workplace Requirements and Lobbying
- Attachment 3: OMB Standard Form 424 (Rev. 7-97) - Application for Federal Assistance
- Attachment 4: State of California STD. 19 (Rev. 3-95) - Nondiscrimination Compliance
Statement
- Attachment 5: Letter to Previously Funded CALFED Watershed Stewardship Programs
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Attachment 1:

DWR 4100 (Rev. 9/95) - Standard Clauses - Contracts with Public Entities

**DWR 4099 (Rev. 9/95) - Standard Clauses - Service & Consultant Service
Contracts for \$5,000 & Over with Nonpublic Entities**

DWR 4099A (Rev. 1/99) - Additional Standard Clauses

**STANDARD CLAUSES -
CONTRACTS WITH PUBLIC ENTITIES**

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

Nondiscrimination Clause. During the performance of this contract, the recipient, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: Folsom, California.

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8330 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace.
 - (b) The person's or organization's policy of maintaining a drug-free workplace.
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Every employee who works on the proposed contract or grant:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Americans With Disabilities Act. By signing this contract, Contractor assures the State that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

**STANDARD CLAUSES -
SERVICE & CONSULTANT SERVICE CONTRACTS FOR \$5,000 & OVER WITH NONPUBLIC ENTITIES**

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

National Labor Relations Board Clause. In accordance with Public Contract Code Section 10296, Contractor declares under penalty of perjury that no more than one final, unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a federal court which orders Contractor to comply with an order of the national Labor Relations Board.

Nondiscrimination Clause. During the performance of this contract, the recipient, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Statement of Compliance. The Contractor's signature affixed hereon and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

Performance Evaluation. For consulting service agreements, Contractor's performance under this contract will be evaluated after completion. A negative evaluation will be filed with the Department of General Services.

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: Folsom, California.

Disabled Veteran Business Enterprise Participation Requirement Audit Clause. Contractor or vendor agrees that the awarding department or its delegates will have the right to review, obtain, and copy all records pertaining to performance of the contract. Contractor or vendor agrees to provide the awarding department or its delegate access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with Public Contract Code Section 10115 et seq. Contractor or vendor further agrees to maintain such records for a period of three (3) years after final payment under the contract. Title 2 CCR Section 1896.73.

Priority Hiring Considerations. For contracts in excess of \$200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the contract to qualified recipients of aid under Welfare and Institutions Code Section 11200. (Public Contract Code Section 10353).

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy of maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Every employee who works on the proposed contract or grant:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Antitrust Claims. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. See Government Code Section 4552.

If an awarding body or public purchasing body received, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. See Government Code Section 4553.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

Americans With Disabilities Act. By signing this contract, Contractor assures the state that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Corporate Qualifications To Do Business in California. Contractor must be currently qualified to do business in California as defined by the Revenue & Taxation Code, Section 23101 unless exempted. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

Agreement No. _____

Exhibit _____

ADDITIONAL STANDARD CLAUSES

Recycled Materials. Contractor hereby certifies under penalty of perjury that 50 (enter value or "0" here) percent of the materials, goods and supplies offered or products used in the performance of this Agreement meets or exceeds the minimum percentage of recycled material as defined in Sections 12161 and 12200 of the Public Contract Code.

Severability. If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

Governing Law. This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

Y2K Language. The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are "Year 2000 compliant." For purposes of this Agreement a good or service is Year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable, with full ability to accurately and unambiguously process, display, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

Child Support Compliance Act. For any Agreement in excess of \$100,000, the Contractor acknowledges in accordance therewith, that:

1. The Contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and
2. The Contractor, to the best of its knowledge, is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

Attachment 2:

**DI-2018 - Certifications Regarding Debarment, Suspension and Other
Responsibility Matters, Drug-Free Workplace Requirements and Lobbying**

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

CHECK IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

CHECK X IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

042018
March 1995
(This form incorporates DI-1953, DI-1954,
DI-1955, DI-1956 and DI-1963)

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK X IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Check if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

**PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements**

**CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND
THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT;
SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.**

**CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL
LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR
SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.**

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

TYPED NAME AND TITLE

JAMES A. CANGER, PRINCIPAL

DATE

APRIL 16, 1999

Attachment 3:

**OMB Standard Form 424 (Rev. 7-97) -
Application for Federal Assistance**

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction Preapplication <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction		2. DATE SUBMITTED April 16, 1999	Applicant Identifier None
3. DATE RECEIVED BY STATE		State Application Identifier	
4. DATE RECEIVED BY FEDERAL AGENCY		Federal Identifier	

5. APPLICANT INFORMATION Legal Name: Resource Design Technology, Inc. Address (give city, county, State, and zip code): 302-A S. Lexington Drive Folsom, California 95630		Organizational Unit: N/A Name and telephone number of person to be contacted on matters involving this application (give area code): James A. Canger (916) 983-9193
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6. EMPLOYER IDENTIFICATION NUMBER (EIN): 94-3291385	7. TYPE OF APPLICANT: (enter appropriate letter in box) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District </div> <div style="width: 45%;"> H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) _____ </div> </div> <div style="text-align: right; margin-top: -20px;"> <input checked="" type="checkbox"/> M </div>
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8. TYPE OF APPLICATION: <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision </div> If Revision, enter appropriate letter(s) in box(es) <input type="checkbox"/> <input type="checkbox"/> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;">A. Increase Award</div> <div style="width: 30%;">B. Decrease Award</div> <div style="width: 30%;">C. Increase Duration</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;">D. Decrease Duration</div> <div style="width: 30%;">Other(specify):</div> <div style="width: 30%;"></div> </div>	9. NAME OF FEDERAL AGENCY: Bureau of Reclamation
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10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </div> TITLE: 12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): State	11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
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13. PROPOSED PROJECT Start Date: 4th Qtr. 1999 Ending Date: 4th Qtr. 2001	14. CONGRESSIONAL DISTRICTS OF: 2, 4, 6 a. Applicant Resource Design Technology, Inc. b. Project
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15. ESTIMATED FUNDING: (Estimated) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">a. Federal</td> <td style="width: 30%; text-align: right;">\$ 00</td> </tr> <tr> <td style="text-align: right;">\$ 250,000+</td> <td></td> </tr> <tr> <td>b. Applicant</td> <td style="text-align: right;">\$ 00</td> </tr> <tr> <td>c. State</td> <td style="text-align: right;">\$ 00</td> </tr> <tr> <td style="text-align: right;">\$ 60,000+</td> <td></td> </tr> <tr> <td>d. Local</td> <td style="text-align: right;">\$ 00</td> </tr> <tr> <td>e. Other</td> <td style="text-align: right;">\$ 00</td> </tr> <tr> <td>f. Program Income</td> <td style="text-align: right;">\$ 00</td> </tr> <tr> <td>g. TOTAL</td> <td style="text-align: right;">\$ 00</td> </tr> </table>	a. Federal	\$ 00	\$ 250,000+		b. Applicant	\$ 00	c. State	\$ 00	\$ 60,000+		d. Local	\$ 00	e. Other	\$ 00	f. Program Income	\$ 00	g. TOTAL	\$ 00	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____ b. No. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	\$ 00																		
\$ 250,000+																			
b. Applicant	\$ 00																		
c. State	\$ 00																		
\$ 60,000+																			
d. Local	\$ 00																		
e. Other	\$ 00																		
f. Program Income	\$ 00																		
g. TOTAL	\$ 00																		

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? <input type="checkbox"/> Yes If "Yes," attach an explanation. <input checked="" type="checkbox"/> No		
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18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.		
a. Type Name of Authorized Representative James A. Canger	b. Title Principal	c. Telephone Number (916) 983-9193
d. Signature of Authorized Representative 		e. Date Signed April 16, 1999

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Standard Form 424 (Rev. 7-97)
Prescribed by OMB Circular A-102

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I-018355

Attachment 4:

**State of California STD. 19 (Rev. 3-95) -
Nondiscrimination Compliance Statement**

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) PMC

COMPANY NAME

Resource Design Technology, Inc.

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

James A. Canger

DATE EXECUTED

April 15, 1999

EXECUTED IN THE COUNTY OF

Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Principal

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Resource Design Technology, Inc.

Attachment 5:
Letter to Previously Funded CALFED Watershed Stewardship Programs

RESOURCE DESIGN
TECHNOLOGY, INC.
Land • Minerals • Environment

April 13, 1999

**VIA FACSIMILE «Fax_Number»
AND U.S. MAIL**

«Title» «First_Initial»«First_Name» «Middle_Initial»«Last_Name»«Suffix»
«Position»
«Department»
«Company»
«Address»
«City», «State» «Zip»

**SUBJECT: Integrating CalFed Goals with Local Criteria Applied to Surface
Mining Operations and Other Related Land Uses**

Dear «Title» «Last_Name»:

Resource Design is proposing to CalFed for granting, a program of analysis and implementation concerning existing and future mining operations. Our program will focus on mining in or nearby streams identified within the geographical scope of CalFed. The grant proposal specifically addresses the goals of local watershed stewardship.

Resource Design's grant proposal will analyze local land uses that are located in areas contributing to CalFed's ERP watershed, habitat restoration (channels, floodplains and marshes), and water quality objectives. Our proposal approach to the project is to analyze the total ERP geographical area by organizing local, lead agency manageable areas, (and to coordinate with previously funded and similar watershed projects) including counties cities and Federal land agencies (USFS, BLM). Our project approach will include each lead agency contributing to:

- Collecting data for a local inventory of mining sites that support CalFed's ERP and its 1999 objectives;
- Identifying land use sites requiring upgrade to CalFed standards;
- Identification of sites that have delayed reclamation requiring solutions supporting the CalFed ERP;
- Creating standards of approval for future mining operations concerning erosion control and reclamation that support local mining planning and the CalFed ERP; and
- Creating engineering design standards for future mining operations that implement reclamation consistent with Surface Mining and Reclamation Act (SMARA), local planning objectives and CalFed's ERP.

Our proposal would be designed to demonstrate that by supporting local lead agency planning objectives and SMARA requirements, responsible, comprehensive and locally administered land

April 13, 1999

Page 2

uses can be managed supporting the CalFed ERP. Proposal tasks would be managed by Resource Design's Project Manager, David Brown.

The 1999 funding year has identified as a key selection criteria "linkage." Linkage is defined as a demonstrated effort to dovetail our proposed project with previously funded projects in similar categorical areas, such as local watershed stewardship. Your program has been identified as a potentially linked project which we would like to discuss with you. Your interest in our project is greatly appreciated and we look forward to your response. We appreciate the opportunity to introduce our project to you and look forward to exploring areas in which we can work together.

If we can be of any assistance or if you require more information, please feel free to call us at your convenience.

Sincerely,

James A. Canger
Principal

June Dockins
CalFed Program Manager

JAC:ren

Attachment 6:
Letter to County SMARA Managers

RESOURCE DESIGN
TECHNOLOGY, INC.
Land • Minerals • Environment

March 29, 1999

«FirstName» «LastName»
«JobTitle»
«Company»
«Address1»
«Address2»
«City», «State» «PostalCode»

SUBJECT: Request for Letter of Interest in the CalFed Grant

Dear «Title» «FirstName» «LastName»:

Resource Design Technology, Inc. (Resource Design) is developing a grant proposal for this year's CalFed Ecosystem Restoration Program (ERP) due April 16, 1999. Resource Design has been studying past granted proposals, attending CalFed meetings, reviewing the Ecosystem Restoration Program EIS/EIR, reviewing the Ecosystem Restoration Strategic Plan, and reviewing the objectives of the Proposal Solicitation package, including attending CalFed's Pre-Submittal Workshop. Based on our unique experience with certain land uses, and our background, we believe the grant proposal introduced below satisfies several objectives of CalFed's ERP and stands a strong chance to be funded.

Grants and projects awarded and tracked over the last few years have demonstrated to CalFed the projects that successfully supported their objectives, and those that did not. CalFed's \$18 million dollar fund this year (July 1, 1999 to June 30, 2000) has identified newer objectives and selection criteria assisting CalFed to choose projects that meet the objectives. For example, CalFed has identified as a key selection criteria "linkage". Linkage, according to CalFed, should demonstrate that the monies granted are distributed to benefit more project participants. As we have discussed, over 40 counties and 10 cities will be involved in our project, strongly demonstrating to CalFed the linkage objective we will attain with this effort.

Resource Design's grant proposal will analyze local land uses that are located in areas contributing to CalFed's ERP watershed, habitat restoration (channels, floodplains and marshes), and water quality objectives. Our proposal approach to the project is to analyze the total ERP geographical area by organizing local, lead agency manageable areas, including counties, cities and Federal land agencies (USFS, BLM). Our project approach will include each lead agency contributing to:

- Collecting data for a local inventory of mining sites that support Cal Fed's ERP and its 1999 objectives;
- Identifying land use sites requiring upgrade to Cal Fed standards;
- Identification of sites that have delayed reclamation requiring solutions supporting the Cal Fed ERP;

March 29, 1999

Page 2

- Creating standards of approval for future mining operations concerning erosion control and reclamation that support local mining planning and the Cal Fed ERP; and
- Creating engineering design standards for future mining operations that implement reclamation consistent with SMARA, local planning objectives and Cal Fed's ERP.

Our proposal would be designed to demonstrate that by supporting local lead agency planning objectives and SMARA requirements, responsible, comprehensive and locally administered land uses can be managed supporting the Cal Fed ERP. Proposal tasks would be managed by Resource Design's Project Manager, David Brown, and would include lead agency participation as team members. Team members' time would be reimbursed, providing the lead agency additional revenue (not of like kind) during the year for their data analyses and project support, including meetings for preparation, implementation and project updates.

As one of the lead agencies, your participation as a project team member is requested. Please send a brief letter to my attention expressing your interest to be included as a team member postmarked before April 7, 1999. Your letters, if possible (there is a page limitation to the proposal), will be included in the proposal document demonstrating your project interest. We appreciate your interest to join our team, and in the event you have any questions, please feel free to contact me at (916) 983-9193.

Sincerely,

James A. Canger
Principal

JAC:ren

Brian Peters
Alpine County Planning
17300 State Hwy 89
Markleeville, CA 96120

Susan Grijala
Amador County Planning
500 Argonaut Way
Jackson, CA 95642-2379

Tom Parilo
Director of the Dept. of
Development Service
Butte County Planning
Division
cc: Dan Breiden
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Oroville, CA 95965

Dan Seider
Calaveras County Planning
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San Andreas, CA 95249

Dave Kelly
Colusa County Planning
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Colusa, CA 95932

Dennis Barry
Director of Community
Development
Contra Costa County
Development
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Wing
Martinez, CA 94553-0095

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El Dorado County Planning
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Placerville, CA 95667

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Acting Senior Staff Analyst
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& Development Services
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Director
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Greg Gatzka
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Rick Simon
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Susanville, CA 96130

Dave Merchen
Madera County Planning
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Madera, CA 93637

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County Development Agency
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San Rafael, CA 94903

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Mariposa County Planning
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Mariposa, CA 95338

Nash Gonzalez
Mendocino County Planning
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Ukiah, CA 95482

Leon Martinez
Merced County Planning
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Merced, CA 95340-3729

Scott Kessler
Director
Modoc County Planning
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Alturas, CA 96101

Wil Selleck
Napa County Planning
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Napa, CA 94559

Todd Herman
Nevada County Planning
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Nevada City, CA 95959-8617

Tom Kubik
Placer County Planning Dept.
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Auburn, CA 95603

James Graham
Plumas County Planning
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Quincy, CA 95971-6012

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Planning Director
Sacramento County Planning
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Sacramento, CA 95814

Rob Mendiola
Director
San Benito County Planning
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Hollister, CA 95023

Tom Gau
Sr. Civil Engineer
San Joaquin Community
Development Dept.
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Stockton, CA 95205

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San Mateo County Planning
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Redwood City, CA 94063

Gary Rudholm
Santa Clara County Planning
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Floor
San Jose, CA 95110

Suzanne Smith
Santa Cruz County Planning
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

Bill Walker
Shasta County Planning
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Redding, CA 96001

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Sierra County Department of
Public Works
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Downieville, CA 95936

Richard Barnum
Director
Siskiyou County Planning
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Yreka, CA 96097

Dave Schiltgen
Sonoma County Permit &
Resource Management
Department
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Santa Rosa, CA 95403

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Stanislaus County Planning
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Modesto, CA 95354

Tom Last
Sutter County Community Services
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Yuba City, CA 95992

John Stoufer
Tehama County Planning
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Red Bluff, CA 96080

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Director
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Weaverville, CA 96093-1613

Tom Campanella
Planning Director
Tulare County Planning
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Visalia, CA 93291

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Tuolumne County Planning
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Sonora, CA 95370

Dave Morrison
Community Development Agency
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Woodland, CA 95695

James Manning
Director
Yuba County Planning
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Marysville, CA 95901-4198

Bruce Jensen
Alameda County Planning
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Hilton Cass
U.S. Forest Service
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Vallejo, CA 94592

Mitchel Leverette
BLM
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Sacramento, CA 95825

Attachment 7:

Letter to County Boards of Supervisors

RESOURCE DESIGN
TECHNOLOGY, INC.
Land • Minerals • Environment

April 7, 1999

«Title»«First_Initial» «First_Name»«Middle_Initial»«Last_Name»«Suffix»
«Position»
«Department»
«Company»
«Address»
«Address_2»
«City», «State» «Zip»

**SUBJECT: Resource Design Technology, Inc.'s Intent to Submit Proposal for
CalFed's Ecosystem Restoration Program**

Dear Board Members:

Resource Design Technology, Inc. is preparing a grant proposal for CalFed's Ecosystem Restoration Program for the 1999 funding year beginning July 1999. A requirement of all grant applicants is to notify local County Board of Supervisors and County Planning Departments if our proposal could result in a project located in their County. Please note our intent to submit such a proposal to CalFed. Under separate cover your County Planning Department personnel responsible for SMARA and other land uses has also been notified.

Sincerely,

James A. Canger
Principal

JAC:ren